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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,360	02/06/2004	Hitoshi Furukawa	00862.023449.	5049

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EXAMINER	
MILIA, MARK R	
ART UNIT	PAPER NUMBER
2625	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,360	FURUKAWA, HITOSHI	
	Examiner	Art Unit	
	Mark R. Milia	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/12/04,10/18/05,5/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,131,124 to Hanyu.

Regarding claims 1 and 11, Hanyu discloses an image forming apparatus and a data transfer method in an image forming apparatus which comprises a nonvolatile memory and is constituted by an engine section which forms an image and a controller section which transmits image data to the engine section, comprising steps of: establishing synchronization of data transfer by a predetermined control signal of serial communication when data should be transferred from the controller section to the engine section to rewrite the nonvolatile memory (see Fig. 3, column 4 lines 47-49, column 7 lines 30-34 and 48-54, column 8 lines 59-67, and column 9 lines 3-50, synchronization is established after an instruction to download a control program is detected, then the engine controller requests transmission of a downloaded program

from the printer controller, which in turn receives the downloaded program from the host computer, thereby instruction to retrieve the downloaded control program is initiated and in response the control program is transferred to the engine controller and the flash memory is rewritten with the new program), and rewriting the nonvolatile memory by the data transferred in synchronism (see Fig. 3, column 8 lines 1-8, and column 9 lines 51-65).

Regarding claim 12, Hanyu discloses a controller section which transmits image data to an engine section which comprises a nonvolatile memory and forms an image, comprising: interface means for interfacing with the engine section (see Fig. 3 and column 5 lines 7-10 and 63-65), and mode designation data transmission means for transmitting mode designation data which designates a mode for rewriting the nonvolatile memory of the engine section (see column 9 lines 3-17 and 32-37).

Regarding claim 2, Hanyu further discloses wherein the control signal is used as a predetermined signal in an image forming operation and as a sync signal in rewriting the nonvolatile memory (see column 3 lines 50-54, column 4 lines 42-66, and column 8 line 59-column 9 line 65).

Regarding claim 3, Hanyu further discloses wherein the engine section controls the control signal to notify the controller section of a state of the engine section (see column 9 lines 32-37).

Regarding claim 4, Hanyu further discloses wherein the state of the engine section is one of a data transfer error, an erase or rewrite operation result of the

nonvolatile memory, and an end of the rewrite operation of the nonvolatile memory (see column 5 lines 14-20 and column 9 line 66-column 10 line 5).

Regarding claim 5, Hanyu further discloses wherein the engine section controls the control signal to an OFF state in accordance with data reception from the controller section and to an ON state when preparation for next data reception is ended (see column 9 lines 4-10 and 32-37).

Regarding claim 6, Hanyu further discloses wherein the controller section monitors a change of the control signal to an ON state for a predetermined time to detect a state of the engine section (see column 5 lines 14-20 and column 9 lines 32-50).

Regarding claim 7, Hanyu further discloses wherein the predetermined time changes depending on at least a size of the data to be transferred and a block size of the nonvolatile memory to be erased (see column 8 lines 66-67 and column 9 lines 4-37).

Regarding claim 8, Hanyu further discloses wherein the data is a control program code data (see column 3 lines 50-54, column 3 line 66-column 4 line 3, and column 4 lines 47-49).

Regarding claim 9, Hanyu further discloses wherein the control signal is a signal that indicates a state change of the engine section (see column 8 line 59-column 9 line 10 and column 9 lines 32-37).

Regarding claim 10, Hanyu further discloses wherein the nonvolatile memory is a flash memory (see Fig. 3 **301b**).

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0068548 to Sugita.

Regarding claims 1 and 11, Sugita discloses an image forming apparatus and a data transfer method in an image forming apparatus which comprises a nonvolatile memory and is constituted by an engine section which forms an image and a controller section which transmits image data to the engine section, comprising steps of: establishing synchronization of data transfer by a predetermined control signal of serial communication when data should be transferred from the controller section to the engine section to rewrite the nonvolatile memory (see paragraphs 37, 47, 49 lines 20-23, 50-51, and 53), and rewriting the nonvolatile memory by the data transferred in synchronism (see paragraphs 50-51 and 53).

Regarding claim 12, Hanyu discloses a controller section which transmits image data to an engine section which comprises a nonvolatile memory and forms an image, comprising: interface means for interfacing with the engine section (see Fig. 2), and mode designation data transmission means for transmitting mode designation data which designates a mode for rewriting the nonvolatile memory of the engine section (see paragraphs 49 lines 20-23 and 55 line 1-5).

Regarding claim 2, Hanyu further discloses wherein the control signal is used as a predetermined signal in an image forming operation and as a sync signal in rewriting the nonvolatile memory (see paragraphs 37 and 60-66).

Regarding claim 3, Hanyu further discloses wherein the engine section controls the control signal to notify the controller section of a state of the engine section (see paragraphs 105, 108-116, and 118-123).

Regarding claim 4, Hanyu further discloses wherein the state of the engine section is one of a data transfer error, an erase or rewrite operation result of the nonvolatile memory, and an end of the rewrite operation of the nonvolatile memory (see paragraphs 105, 108-116, 118-123, and 142).

Regarding claim 5, Hanyu further discloses wherein the engine section controls the control signal to an OFF state in accordance with data reception from the controller section and to an ON state when preparation for next data reception is ended (see paragraphs 105, 108-116, 118-123, and 126-136).

Regarding claim 6, Hanyu further discloses wherein the controller section monitors a change of the control signal to an ON state for a predetermined time to detect a state of the engine section (see paragraphs 105, 108-116, 118-123, and 126-136).

Regarding claim 7, Hanyu further discloses wherein the predetermined time changes depending on at least a size of the data to be transferred and a block size of the nonvolatile memory to be erased (see paragraphs 114 and 128).

Regarding claim 8, Hanyu further discloses wherein the data is a control program code data (see paragraph 47).

Regarding claim 9, Hanyu further discloses wherein the control signal is a signal that indicates a state change of the engine section (see paragraphs 105, 108-116, 118-123, and 126-136).

Regarding claim 10, Hanyu further discloses wherein the nonvolatile memory is a flash memory (see Fig. 2 **123**).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. To further show the state of the art please refer to the attached Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

/Mark R. Milia/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625